

REMARKS

Claims 1 and 7 have been amended to delete the recitation of "jerking stop", thereby overcoming the objection to the specification for failure to provide antecedent basis for this term. Claims 1 and 7 now recite stopping the machine within a maximum of five revolutions, as disclosed at page 9, lines 13-16.

Claims 1-3, 5-7 and 10-17 stand rejected under 35 U.S.C. §103 as being unpatentable over Goetz et al. DE 4138 479 in view of Perretta U.S. 5,063,845 and Hammond et al. U.S. 6,262,555, which were also cited and applied in the last office action.

Goetz et al. discloses a printing machine having cylinders which are individually driven by respective motors and a controller for a precisely synchronized control of the motors. For a more detailed disclosure of the control in Goetz et al., see U.S. Patent No. 5,610,491. There is no disclosure or suggestion of abruptly stopping the motors in the event of a web break.

Perretta U.S. 5,063,845 discloses an anti-wrap apparatus for a high speed printing press. A web break is not directly detected, but the wrap following a web break is detected by a feeler or flipper plate 24 of wrap detector 26. This flipper plate closes a micro switch 28 which activates a stop circuit 30 to de-energize the motors and apply the brakes (col. 3, lines 38-43). The wrap detector 26 is located as close as possible to the wrap cylinder 10 so that the flipper plate moves before any significant movement of the web in dryer 22 occurs. This provides the opportunity to de-energize the motors and energize the brakes before any significant amount of wrap occurs (col. 3, lines 43-50). However this does not mean that the press is actually brought to a stop within five revolutions. Considerations of inertia cause wrap to occur before things are brought to a standstill in high speed printing presses moving webs at two-thousand feet a minute (col. 3,

lines 51-54). Additional measures are taken to break the web a second time to minimize the amount of wrap which can take place (col. 3, lines 55-63).

The disclosure of Perretta is clear, that the de-energizing of the motors and the energizing of the brakes are separate operations achieved by separate mechanisms. Braking is not achieved by the motors; they are not brought to a standstill within five revolutions by reversing the effective direction of torque produced by the motors, as recited in claim 1, or by driving the motors along an emergency stop ramp, as recited in claim 7.

The Examiner states that Perretta teaches stopping the motors of the printing machine to thereby limit the wrap of a web around a cylinder to about half the circumference of the cylinder, referring to col. 2, lines 12-17. This passage reads as follows:

A further feature of the invention is that the wrap detector feeler may be formed with a serrated edge for severing the web being wrapped before the printing press with its inertia can be stopped, to thereby limit the web wrap to about half the circumference of a blanket cylinder.

This passage in no way suggests stopping the motors to limit the wrap. Rather, it refers to severing the wrapped web to limit the wrapping, because the printing press (due to its inertia) cannot be stopped fast enough. The web severing mechanism is described in greater detail at col. 3, lines 55-63. As described at col. 3, line 64, to col. 4, line 15, it is also possible to use a pusher bar 32 to push the flipper plate 24 against the web.

Perretta does not disclose or suggest any means for bringing the cylinders to a stop within five revolutions. In particular, Perretta does not disclose the individual drive motors which make such an abrupt stop possible. Rather, Perretta discloses precisely the sort of knock-off mechanism which applicants specifically teach away from. As stated in the sentence bridging pages 3 and 4 of the present application, "The use of knock-off and/or catching devices can be

dispensed with entirely, which facilitates and shortens the threading of the web after a web break and subsequent starting of the machine." Perretta utterly fails to suggest any means for stopping the cylinders in time to prevent damaging web wrap. Rather, Perretta teaches an approach to the problem which is necessary due to the inability to stop the cylinders in due time.

From the foregoing, it should be clear that Perretta provides no suggestion whatsoever to stop the motors of Goetz et al. abruptly (within five revolutions) in the event of a web break. As much as Perretta suggests, is the provision of a web deflecting and severing mechanism on the cylinders of Goetz et al.

Hammond et al. teaches stopping a motor by producing a braking torque counter to motor rotation, in order to avoid the use of costly semi-conductor devices or braking resistors. However there is nothing whatsoever in this reference to suggest using the motor control of Hammond et al. in the printing machine of Goetz et al. Perretta cannot provide the motivation because Perretta does not suggest abruptly stopping the motors to prevent web wrap; Perretta teaches away from such an approach.


The Examiner states that one of ordinary skill in the art would recognize the need to stop the motors of Goetz et al. as quickly as possible, but the Examiner has failed to provide any support for that statement; it certainly is not provided by Perretta. With respect to the combination of Goetz et al. and Hammond et al., the mere fact that references can be combined or modified does not render the combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 16 USPQ2d 1430 (Fed. Cir. 1990). See also MPEP §2143.01.

The claims as amended being definite and clearly patentable over the art of record, withdrawal of the rejections and early allowance are solicited. If any objections remain, a call to the undersigned is requested.

It is believed that no fees or charges are required at this time in connection with the present application; however, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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